

AMENDMENTS TO THE SPECIFICATION

Kindly replace the paragraph beginning on page 6, line 3 and ending on page 7, line 5 with the following amended paragraph.

Numerals 12f, 12r respectively designate solenoid-operated linear pressure control valves serving as electromagnetic pressure control valves. By means of conduits 6f, 6r, the linear pressure control valves 12f, 12r are connected to the fluid chambers 5f, 5r of the master cylinder 5 at inlet ports thereof, respectively. Further, an outlet port of the linear pressure control valve 12f is connected to the front wheel cylinders 10fr, 10fl, while an outlet port of the linear pressure control valve 12r is connected to the rear wheel cylinders 10rr, 10r. Each linear pressure control valve 12 performs the pressure control so that in proportion to a control current applied to a linear control solenoid 14 thereof, the fluid pressure from the outlet port becomes higher by zero through a control differential pressure than the fluid pressure to the inlet port. When a slope sensor 9 implements a slope starting control upon detection of the slope of a road surface on which the vehicle is about to start, a control current corresponding to the fluid pressure which is required for the vehicle to remain stopped thereon is applied to the linear control solenoid 14 of each linear pressure control valve 12. As a consequence, even when the fluid pressure to the inlet port of each linear pressure control valve 12 goes down to zero, the pressure for the vehicle to remain ~~stopped~~ stopped thereon which is a certain level of the control differential pressure is maintained at the outlet port of each linear pressure control valve 12, as referred to later in grater detail. Further, that the brake pedal 2 is being stepped on strongly and quickly is detected for example from the measuring value and the increase rate of a brake pressure sensor 16 connected to the fluid pressure chamber

5f of the master cylinder 5 and hence, an emergency braking is judged to have taken place. In this event, the linear control solenoid 14 of each linear pressure control valve 12 is given a control current applied thereto in correspondence to an assist increase pressure, so that the fluid pressure at the outlet port of the linear pressure control valve 12 becomes higher by the assist increase pressure than that at the inlet port, as referred to later in grater detail. Under an ordinary control, on the other hand, each linear pressure control valve 12 is shifted to an opening position with the non-excitation of the linear control solenoid 14 thereby to let the inlet port and the outlet port communicate directly. Between the inlet and outlet portions of each linear pressure control valve 12 and in parallel with the same, there is interposed a check valve (not numbered) for permitting the fluid to flow from the inlet port to the outlet port.

Kindly replace the paragraph beginning on page11, line 9, with the following amended paragraph.

Since it is 4 Mpa for the slope ~~staring~~ starting control, a control current of 0.4 A (ampere) is applied to the solenoid-operated linear pressure control valve 12f at step S84. In this state, the fluid pump 24 21f is driven by the electric motor 22, and the solenoid-operated shutoff valve 23f is switched to the opening position. Since the shutoff valves 17fr, 17fl and the shutoff valves 19fr, 19fl are at the opening positions and the closed positions respectively, the brake fluid is circulated through the fluid pump 21f, the linear pressure control valve 12f and the shutoff valve 23f. Thus, the fluid pressure supplied to the wheel cylinders 10fr, 10fl becomes higher by the assist increase pressure of 4 Mpa than that delivered from the master cylinder 5, whereby

a larger brake force than that in the ordinary state is applied to the road wheels 3fr, 3fl. If the condition for the anti-lock brake control is satisfied in this state, the electronic control unit 25 executes the anti-lock brake control. However, if the judgment is NO at step S83, no control current is applied to the linear pressure control valve 12f at step S85.

Kindly replace the paragraph beginning on page13, line 10 with the following amended paragraph.

It is now assumed that during traveling on a slope or ascent, a quick braking is performed to execute the brake assist control and then, the brake pedal 2 is released in the state that the vehicle speed (V) becomes slower than the third predetermined speed (V3) so that in dependence upon the timings at which the various programs are executed, the slope starting control is executed during the brake assist control to set the slope starting control flag before the brake assist control flag is cleared. In this case, the set speed (V2) at which the brake assist control flag is cleared is ~~very~~ very slow and is equal to or slightly smaller than the third predetermined speed (V3) at which the slope starting control program flag is set. In the brake assist control, the control current of 0.4 A (amperes) is applied to the linear control solenoid 14 of the linear pressure control valve 12, the fluid pump 21f is driven by the electric motor 22, the shutoff valve ~~23~~ 23f is switched into the opening position, and the brake fluid is circulated through the fluid pump 21f, the linear pressure control valve 12f and the shutoff valve 23f. Consequently, the fluid pressure supplied to the wheel cylinders 10fr, 10fl becomes higher by the assist increase pressure of 4 Mpa than the fluid pressure delivered from the master

cylinder 5, so that the road wheels 3fr, 3fl are given a larger brake force than that given in the ordinary state.

Kindly replace the paragraph beginning on page15, line 16 and ending on page 16, line 8 with the following amended paragraph.

In one aspect of the forgoing embodiment, as typically shown in Figure 1, the control differential pressure which is generated by the electromagnetic pressure control valve 12f (12r) connected between the master cylinder 5 and the wheel cylinder 10fr (10fl, 10rr, 10rl) is set to the assist increase pressure (e.g., 4 Mpa) when the initiation of the brake assist control is judged. In this state, the fluid pump 21f (21r) is brought into operation to supply brake fluid between the wheel cylinder 10fr (10fl, 10rr, 10rl) and the electromagnetic pressure control valve 12f (12r). Thus, the fluid pressure supplied to the wheel cylinder 10fr (10fl, 10rr, 10rl) becomes higher by the assist increase pressure than the fluid pressure delivered from the master cylinder 5, so that a larger brake force than that in the ordinary state is applied to a the road wheel 3fr (3fl, 3rr, 3rl). The control differential pressure generated by the electromagnetic pressure control valve 12f (12r) is set to the stop holding pressure (e.g., 7 Mpa) under the slope starting control. Thus, even when the release of a brake pedal 2 causes the master cylinder 5 to deliver the fluid of zero-pressure, the stop holding pressure remains closed in the wheel cylinder 10fr (10fl, 10rr, 10rl), so that the road wheel 3fr (3fl, 3rr, 3rl) is kept stopped reliably with the brake force applied thereon. In this manner, the brake assist control and the slope starting control can be selectively executed by utilizing the electromagnetic pressure control valve 12f (12r) commonly for the both controls and by altering the control differential

pressure generated by the electromagnetic pressure control valve 12f (12r).

Accordingly, the brake pressure control device 1 according to the present invention can perform the both controls in the construction which is light in weight and low in cost.